

ABSTRACT

A dye-sensitized photoelectric conversion apparatus having enhanced energy conversion efficiency and a production method thereof are provided.

The dye-sensitized photoelectric conversion apparatus which has semiconductor layer (13) containing a photosensitizing dye (14) and is constituted such that a charge carrier generated by allowing light to incident in the photosensitizing dye (14) is drawn out through the semiconductor layer (13), in which the semiconductor layer (13) is constituted by a plurality of regions (13A to 13D) having different energy levels from one another of a passage through which the charge carrier is transferred. Further, the plurality of regions (13A to 13D) are arranged such that the energy levels are reduced stepwise and/or continuously in the direction of drawing the charge carrier out.